

OIPe

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/717,789

DATE: 12/06/2000
 TIME: 14:55:40

Input Set : A:\W078880.txt
 Output Set: N:\CRF3\12062000\I717789.raw

ENTERED

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4 <110> APPLICANT: Chiorini, John
5       Kotin, Robert M.
6       Safer, Brian
8 <120> TITLE OF INVENTION: AAV5 VECTOR AND USES THEREOF
11 <130> FILE REFERENCE: 14014.0323U3
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/717,789
C--> 13 <141> CURRENT FILING DATE: 2000-11-21
13 <150> PRIOR APPLICATION NUMBER: PCT/US99/11958
14 <151> PRIOR FILING DATE: 1999-05-28
16 <150> PRIOR APPLICATION NUMBER: 60/087,029
17 <151> PRIOR FILING DATE: 1998-05-28
19 <160> NUMBER OF SEQ ID NOS: 23
21 <170> SOFTWARE: FastSEQ for Windows Version 3.0
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24 <211> LENGTH: 4652
25 <212> TYPE: DNA
26 <213> ORGANISM: Artificial Sequence
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
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34   caaagagctg ccagacgacg gccctctggc cgtcgcctcc caaacgagc cagcgagcga      120
35   gcgaacgcga caagggggag agtgccacac tctcaagcaa gggggttttg taagcagtga      180
36   tgtcataatg atgtaatgct tattgtcacg cgatagttaa tgattaacag tcatgtgatg      240
37   tgttttatcc aataggaaga aagcgcgcgt atgagtcttc gcgagacttc cggggtataa      300
38   aagaccgagt gaacgagccc gccgccatcc tttgctctgg actgctagag gacctcgtct      360
39   gccatggcta ccttctatga agtcattggt cgcgtcccat ttgacgtgga ggaacatctg      420
40   cctgggaattt ctgacagctt tgtggactgg gtaactggtc aaatttggga gctgcctcca      480
41   gagtccagatt taaatttgac tctggttgaa cagcctcagt tgacggtggc tgatagaatt      540
42   cgcctcgtgt tctgtacga gtggaacaaa ttttccaagg aggagtccaa attctttgtg      600
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44   tcttccatgy tctcggycgc ctacgtgagt cagattcgcy cccagctggt gaaagtggtc      720
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46   ggagccaata aggtggtgga ttctgggtat attccgcct acctgctgcc gaaggtccaa      840
47   ccggagcttc agtgggcgtg gacaaaacctg gacgagtata aattggccgc cctgaatctg      900
48   gaggagcgca aacggctcgt cgcgcagttt ctgycagaat cctcgacgcy ctgcaggag      960
49   gcggcttcgc agcgtgagtt ctcggctgac ccggtcctca aaagcaagac ttcccagaaa      1020
50   tacatggcgc tegtcaactg gctcgtggag caeggcctca ctcccgagaa gcagtggatc      1080
51   caggaaaatc aggagagcta cctctcttcc aactccaccy gcaactctcg gagccagatc      1140
52   aaggccgcgc tcgacaaagc gacccaaatt atgagtctga caaaaagcgc ggtggactac      1200
53   ctctgtggga gctccgttcc cagggacatt tcaaaaaaca gaatctggca aatttttgag      1260
54   atgaatggct acgaccggc ctacgcggga tccatcctct acggtctggg tcagcgtctc      1320
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56   gcggaggcca tcgccacac tgtgcccttt tacggtctcy tgaactggac caatgaaaac      1440
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59 aaatgtaaat cctctgttca aattgattct acccctgtca ttgtaacttc caatacaaac 1620
60 atgtgtgttg tgggtgatgg gaattccacg acctttgaac accagcagcc gctggaggac 1680
61 cgcattgttca aatttgaact gactaagcgg ctcgccccag attttggcaa gattactaag 1740
62 cagggaagtca aggaactttt tgcctgggca aaggtcaatc aggtgcgggt gactcacgag 1800
63 tttaaaagttc ccagggaatt ggcgggaact aaagggcgcg agaaatctct aaaacgcccc 1860
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65 gtccccgaga cgcctcgcag ttcagacgtg actgttgatc ccgctcctct gcgaccgctc 1980
66 aatttgaatt caaggtatga ttgcaaatgt gactatcatg ctcaatttga caacatttct 2040
67 aacaaatgtg atgaatgtga atatttgaat cggggcaaaa atggatgtat ctgtcacaat 2100
68 gtaactcact gtcaaaattt tcatgggatt ccccccgtgg aaaagaaaaa ctgttcagat 2160
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70 gttgatcacc ctcagattt gtttgaagaa gtttgtgaag gtcttcgcga gtttttgggc 2280
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72 cttgtgtctc ctggttataa ctatctcgga ccgggaaacg gtctcgatcg aggagagcct 2400
73 gtcaacaggg cagacgaggt cgcgcgagag cagacatct cgtacaacga gcagcttgag 2460
74 gcgggagaca acccctacct caagtacaac cagcgggacg ccgagtttca ggaagaactc 2520
75 gcgcagcaca catccttcgg gggaaacctc ggaaggcag tctttcaggc caagaaaagg 2580
76 gttctcgaac ctlttgccct ggttgaagag ggtgctaaga cggccctac cggaaaaggc 2640
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78 acctcgtcag acgcggaagc tggaccacgc ggtatccacg agctgcgaat cccagcccaa 2760
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108 gagtgtggca ctctccccc tgcgcgttc gctcgcgcgc tggctcggtt ggggggggtg 4560
109 cagctcaag agctgccaga cgcggccct ctggccgtcg ccccccaaa ctagccagcg 4620
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117 <220> FEATURE:
118 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
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121 <400> SEQUENCE: 2
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125           20           25           30
126 Gly Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys
127           35           40           45
128 Ile Met Ser Leu Thr Lys Ser Ala Val Asp Tyr Leu Val Gly Ser Ser
129           50           55           60
130 Val Pro Glu Asp Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met
131           65           70           75           80
132 Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys
133           85           90           95
134 Gln Arg Ser Phe Asn Lys Arg Asn Thr Val Trp Leu Tyr Gly Pro Ala
135           100          105          110
136 Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
137           115          120          125
138 Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
139           130          135          140
140 Cys Val Asp Lys Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn
141           145          150          155          160
142 Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
143           165          170          175
144 Val Asp Gln Lys Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val
145           180          185          190
146 Ile Val Thr Ser Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser
147           195          200          205
148 Thr Thr Phe Glu His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe
149           210          215          220
150 Glu Leu Thr Lys Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln
151           225          230          235          240
152 Glu Val Lys Asp Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val
153           245          250          255
154 Thr His Glu Phe Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala
155           260          265          270
156 Glu Lys Ser Leu Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr
157           275          280          285
158 Lys Ser Leu Glu Lys Arg Ala Arg Leu Ser Phe Val Pro Glu Thr Pro
159           290          295          300

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160 Arg Ser Ser Asp Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn
161 305 310 315 320
162 Trp Asn Ser Arg Tyr Asp Cys Lys Cys Asp Tyr His Ala Gln Phe Asp
163 325 330 335
164 Asn Ile Ser Asn Lys Cys Asp Glu Cys Glu Tyr Leu Asn Arg Gly Lys
165 340 345 350
166 Asn Gly Cys Ile Cys His Asn Val Thr His Cys Gln Ile Cys His Gly
167 355 360 365
168 Ile Pro Pro Trp Glu Lys Glu Asn Leu Ser Asp Phe Gly Asp Phe Asp
169 370 375 380
170 Asp Ala Asn Lys Glu Gln
171 385 390
173 <210> SEQ ID NO: 3
174 <211> LENGTH: 610
175 <212> TYPE: PRT
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178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence:/Note =
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186 20 25 30
187 Gln Ile Trp Glu Leu Pro Pro Glu Ser Asp Leu Asn Leu Thr Leu Val
188 35 40 45
189 Glu Gln Pro Gln Leu Thr Val Ala Asp Arg Ile Arg Arg Val Phe Leu
190 50 55 60
191 Tyr Glu Trp Asn Lys Phe Ser Lys Gln Glu Ser Lys Phe Phe Val Gln
192 65 70 75 80
193 Phe Glu Lys Gly Ser Glu Tyr Phe His Leu His Thr Leu Val Gln Thr
194 85 90 95
195 Ser Gly Ile Ser Ser Met Val Leu Gly Arg Tyr Val Ser Gln Ile Arg
196 100 105 110
197 Ala Gln Leu Val Lys Val Val Phe Gln Gly Ile Glu Pro Gln Ile Asn
198 115 120 125
199 Asp Trp Val Ala Ile Thr Lys Val Lys Lys Gly Gly Ala Asn Lys Val
200 130 135 140
201 Val Asp Ser Gly Tyr Ile Pro Ala Tyr Leu Leu Pro Lys Val Gln Pro
202 145 150 155 160
203 Glu Leu Gln Trp Ala Trp Thr Asn Leu Asp Glu Tyr Lys Leu Ala Ala
204 165 170 175
205 Leu Asn Leu Glu Glu Arg Lys Arg Leu Val Ala Gln Phe Leu Ala Glu
206 180 185 190
207 Ser Ser Gln Arg Ser Gln Glu Ala Ala Ser Gln Arg Glu Phe Ser Ala
208 195 200 205
209 Asp Pro Val Ile Lys Ser Lys Thr Ser Gln Lys Tyr Met Ala Leu Val
210 210 215 220
211 Asn Trp Leu Val Glu His Gly Ile Thr Ser Glu Lys Gln Trp Ile Gln

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212 225          230          235          240
213 Glu Asn Gln Glu Ser Tyr Leu Ser Phe Asn Ser Thr Gly Asn Ser Arg
214          245          250          255
215 Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys Ile Met Ser Leu
216          260          265          270
217 Thr Lys Ser Ala Val Asp Tyr Leu Val Gly Ser Ser Val Pro Glu Asp
218          275          280          285
219 Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met Asn Gly Tyr Asp
220          290          295          300
221 Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys Gln Arg Ser Phe
222          305          310          315          320
223 Asn Lys Arg Asn Thr Val Trp Leu Tyr Gly Pro Ala Thr Thr Gly Lys
224          325          330          335
225 Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro Phe Tyr Gly Cys
226          340          345          350
227 Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp Cys Val Asp Lys
228          355          360          365
229 Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn Lys Val Val Glu
230          370          375          380
231 Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg Val Asp Gln Lys
232          385          390          395          400
233 Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val Ile Val Thr Ser
234          405          410          415
235 Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser Thr Thr Phe Glu
236          420          425          430
238 His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe Glu Leu Thr Lys
239          435          440          445
240 Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln Glu Val Lys Asp
241          450          455          460
242 Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val Thr His Glu Phe
243          465          470          475          480
244 Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala Glu Lys Ser Leu
245          485          490          495
246 Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr Lys Ser Leu Glu
247          500          505          510
248 Lys Arg Ala Arg Leu Ser Phe Val Pro Glu Thr Pro Arg Ser Ser Asp
249          515          520          525
250 Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn Trp Asn Ser Arg
251          530          535          540
252 Tyr Asp Cys Lys Cys Asp Tyr His Ala Gln Phe Asp Asn Ile Ser Asn
253          545          550          555          560
254 Lys Cys Asp Glu Cys Glu Tyr Leu Asn Arg Gly Lys Asn Gly Cys Ile
255          565          570          575
256 Cys His Asn Val Thr His Cys Gln Ile Cys His Gly Ile Pro Pro Trp
257          580          585          590
258 Glu Lys Glu Asn Leu Ser Asp Phe Gly Asp Phe Asp Asp Ala Asn Lys
259          595          600          605
260 Glu Gln
261          610

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VERIFICATION SUMMARY

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Input Set : A:\W078880.txt

Output Set: N:\CRF3\12062000\I717789.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date